

What is claimed is:

1. An optical glass comprising:

optical constants which are a refractive index (nd) in a range of 1.70 to 1.75 and an Abbe number (vd) in a range of 45.0 to 54.0;

a glass transformation temperature (Tg) in a range of 500 to 580°C;

more than 5 to 15 mass % of SiO₂;

20 to less than 30 mass % of B₂O₃;

a total amount of SiO₂ + B₂O₃ being more than 25 to 40 mass %;

more than 21 to less than 30 mass % of La₂O₃;

more than 5 to 15 mass % of Y₂O₃;

0 to less than 10 mass % of Gd₂O₃;

1 to 8 mass % of ZrO₂;

0.1 to 5 mass % of Nb₂O₅;

more than 5 to 12 mass % of Ta₂O₅;

a total amount of ZrO₂ + Nb₂O₅ + Ta₂O₅ being 7 to 20 mass %;

0 to 10 mass % of ZnO;

0 to 10 mass % of CaO;

0 to 5 mass % of SrO;

0 to 10 mass % of BaO;

a total amount of ZnO + CaO + SrO + BaO being 5 to 15 mass %;

1 to 8 mass % of Li₂O;

0 to 1 mass % of Sb_2O_3 ; and

0 to 1 mass % of As_2O_3 ;

wherein the optical glass is substantially free of Yb_2O_3 and Al_2O_3 , and devitrification is not generated when the optical glass is kept at a temperature of 920°C for two hours.

2. The optical glass as claimed in claim 1, wherein the devitrification is not generated when the optical glass is kept at a temperature of the glass transformation temperature (T_g) + 80°C for 30 minutes.

3. The optical glass as claimed in claim 1, wherein the devitrification is not generated when the optical glass is kept at a temperature of the glass transformation temperature (T_g) + 140°C for 30 minutes.

4. The optical glass as claimed in claim 1, wherein the optical glass is substantially free of a fluorine, a PbO , a WO_3 and an SnO_2 components.

5. The optical glass as claimed in claim 2, wherein the optical glass is substantially free of a fluorine, a PbO , a WO_3 and an SnO_2 components.

6. The optical glass as claimed in claim 3,

wherein the optical glass is substantially free of a fluorine, a PbO , a WO_3 , and an SnO_2 components.